

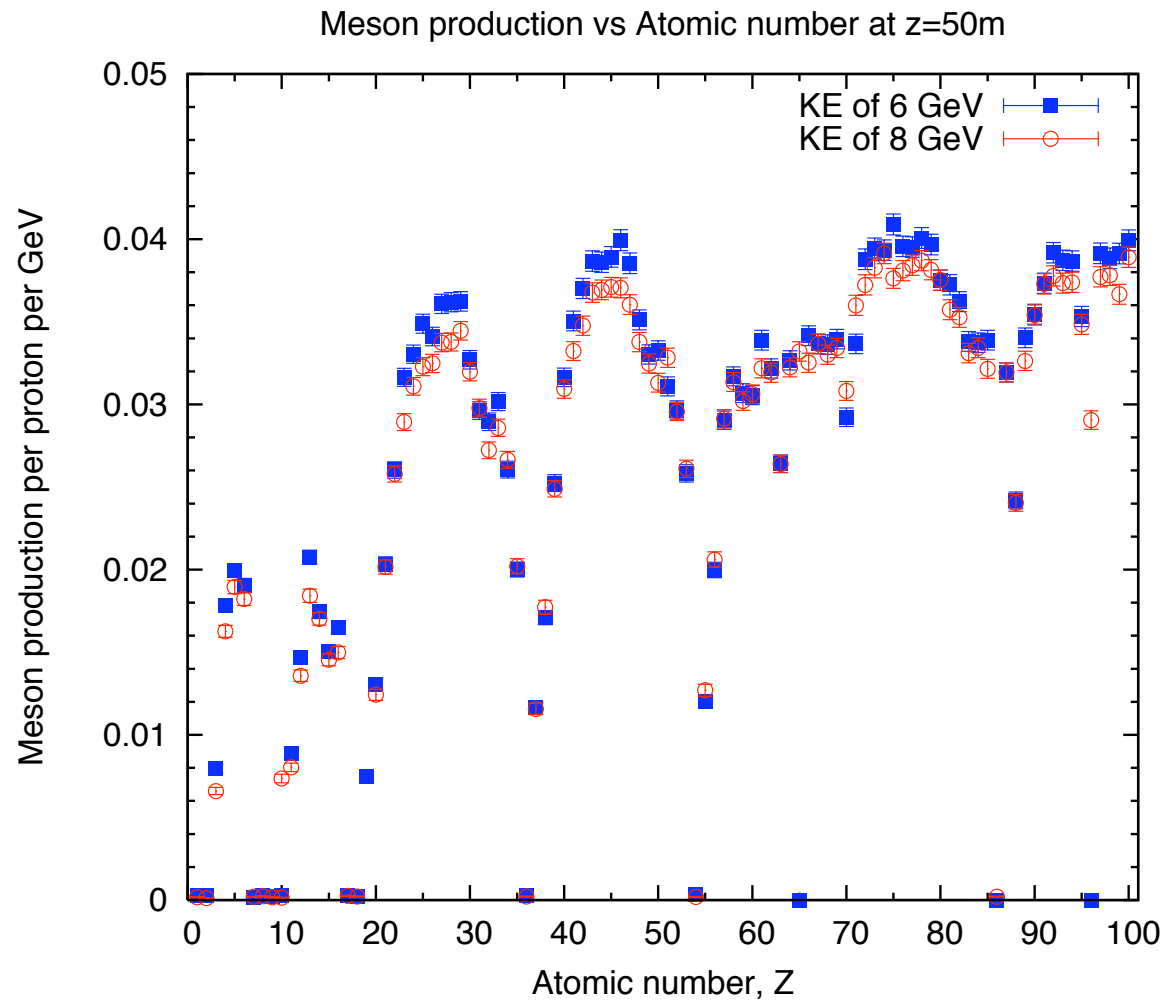
Optimization of a Gallium Target

X. Ding, UCLA

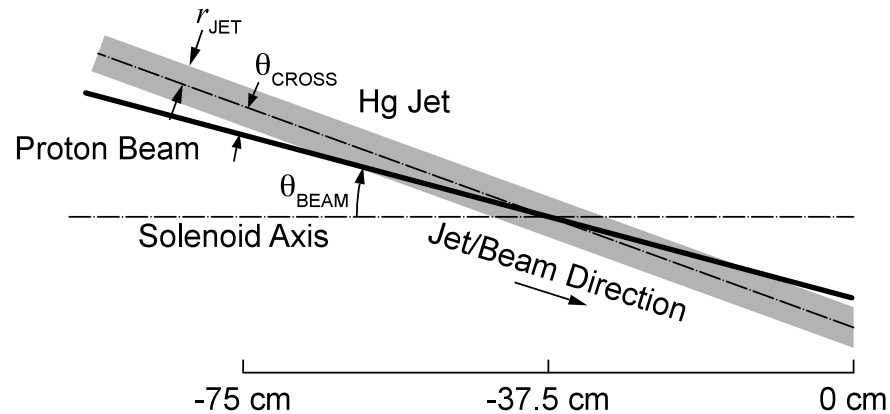
Target Studies, Nov. 29, 2011

Meson Productions at 6 and 8 GeV

(All using the same geometry as Hg case)



Optimized Target Parameters at $z = -37.5$ cm

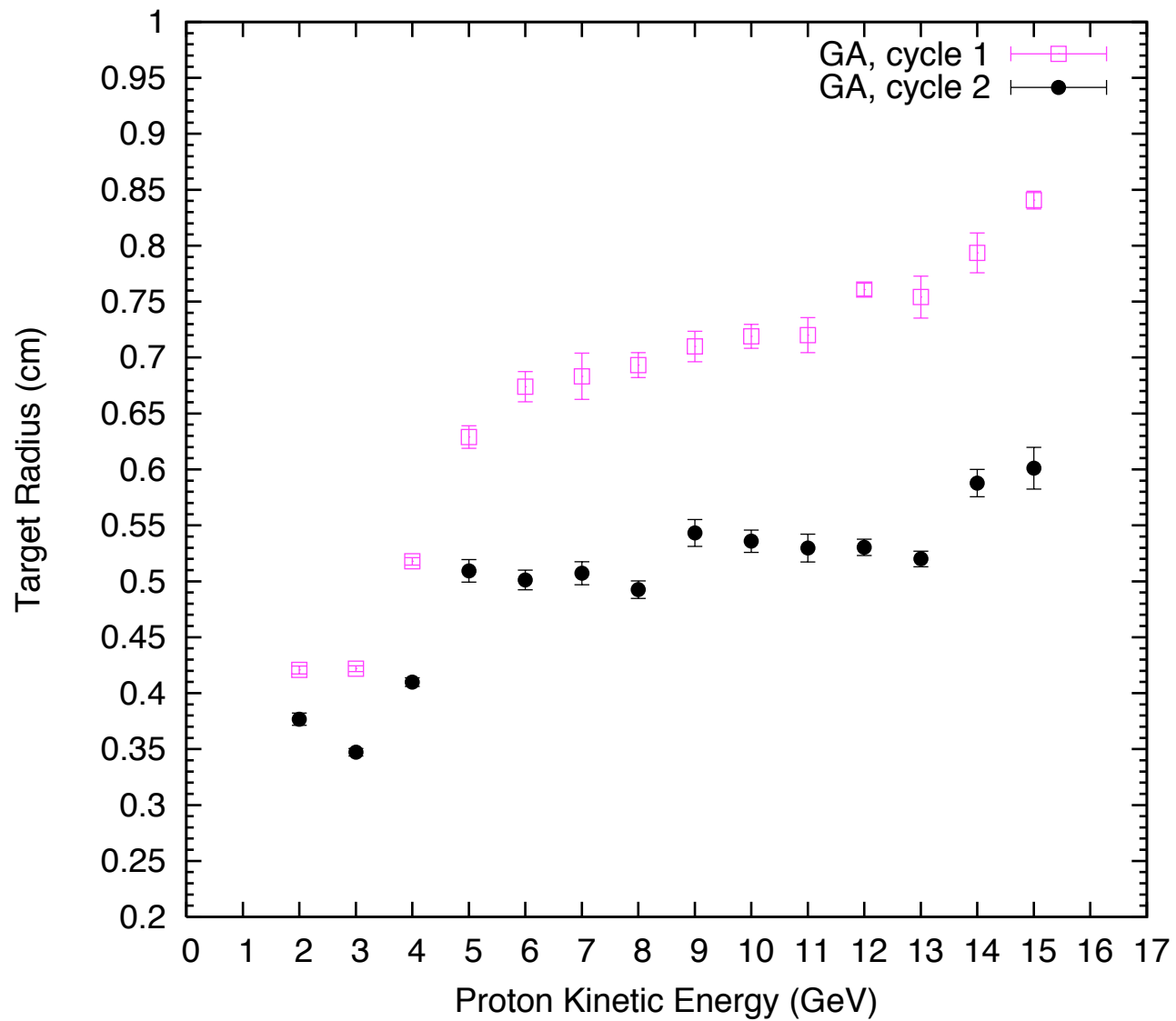


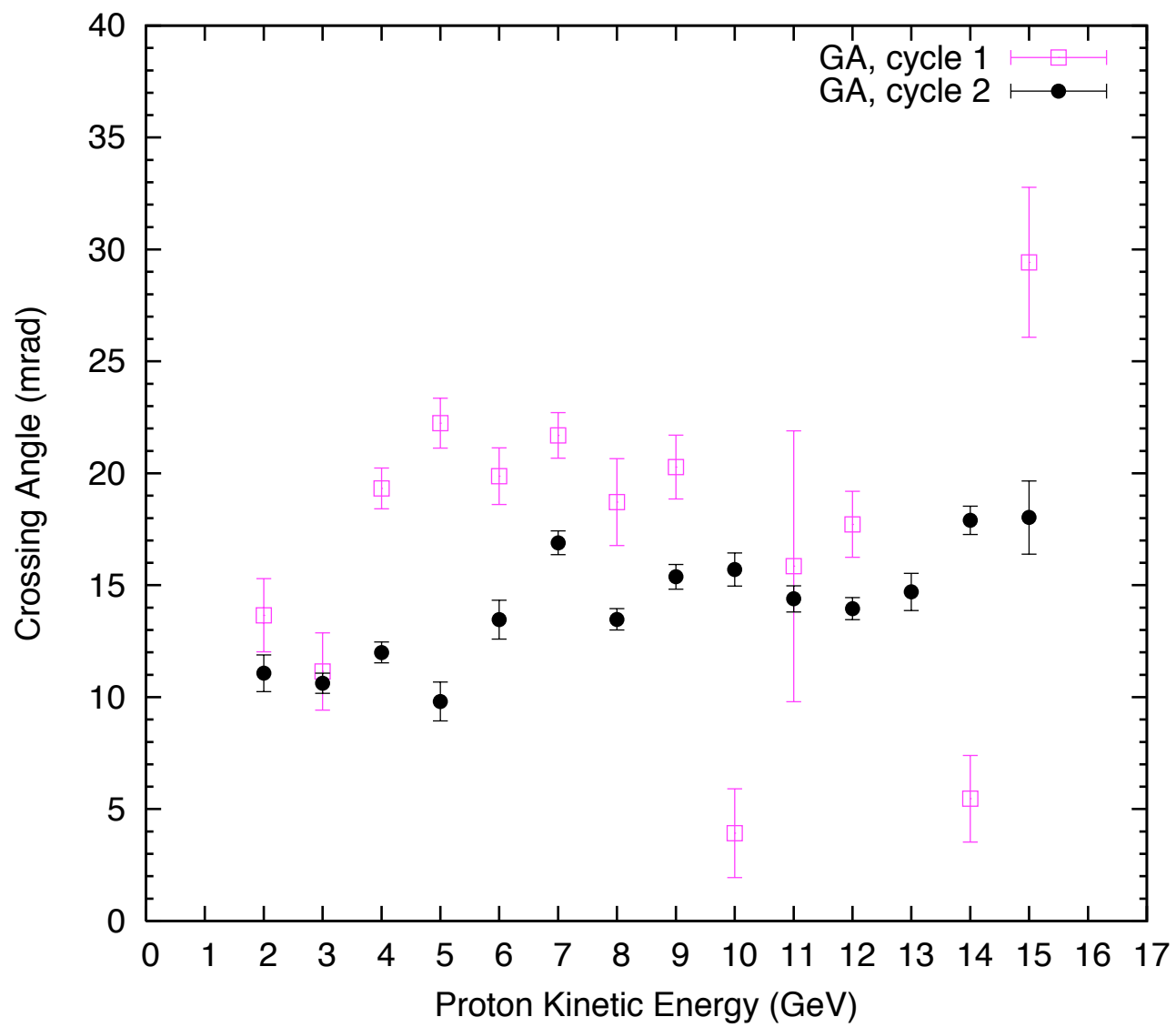
The mercury jet target geometry. The proton beam and mercury jet cross at $z = -37.5$ cm.

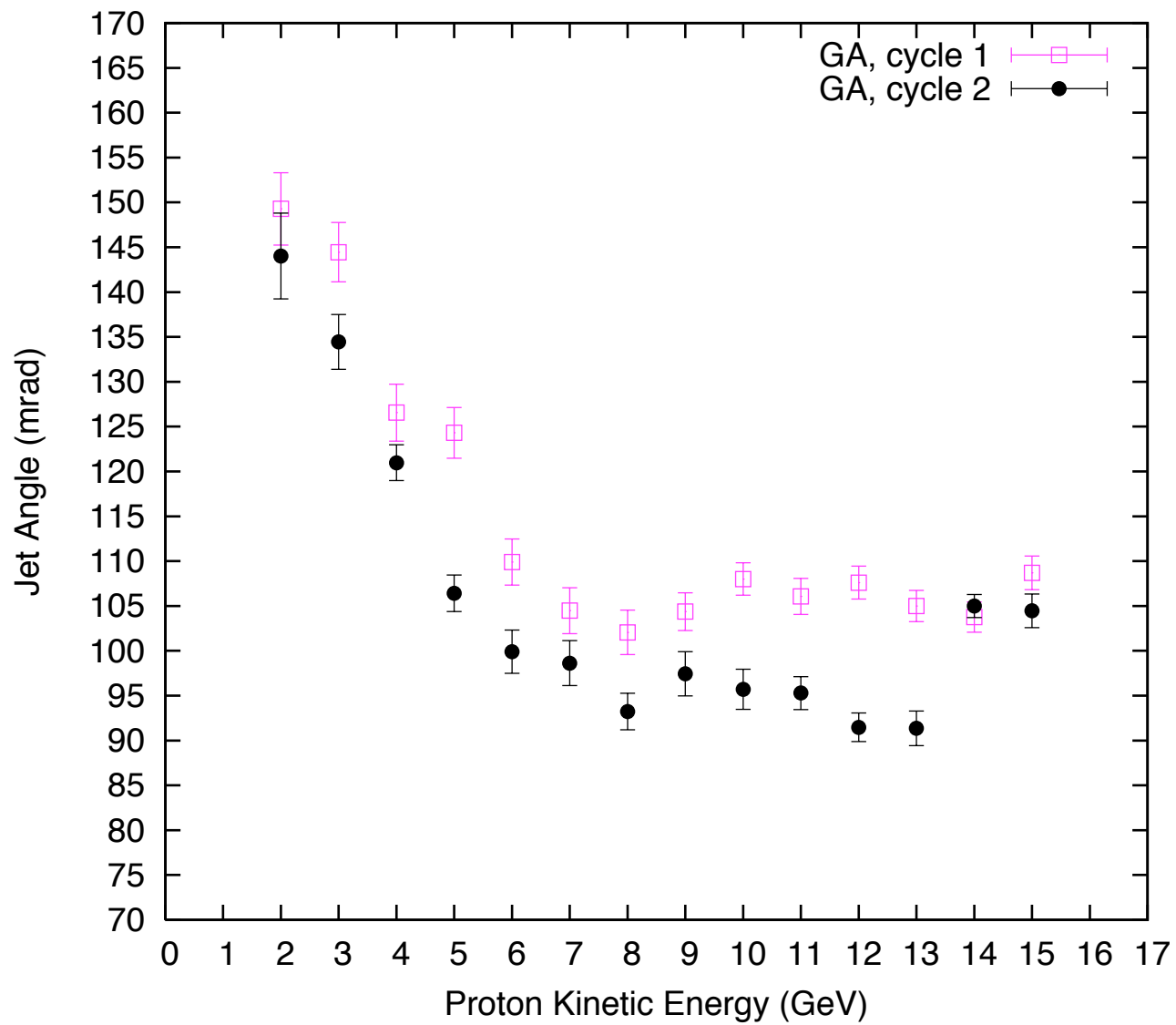
New optimization procedure with Study-2a Geometry and fieldmap,

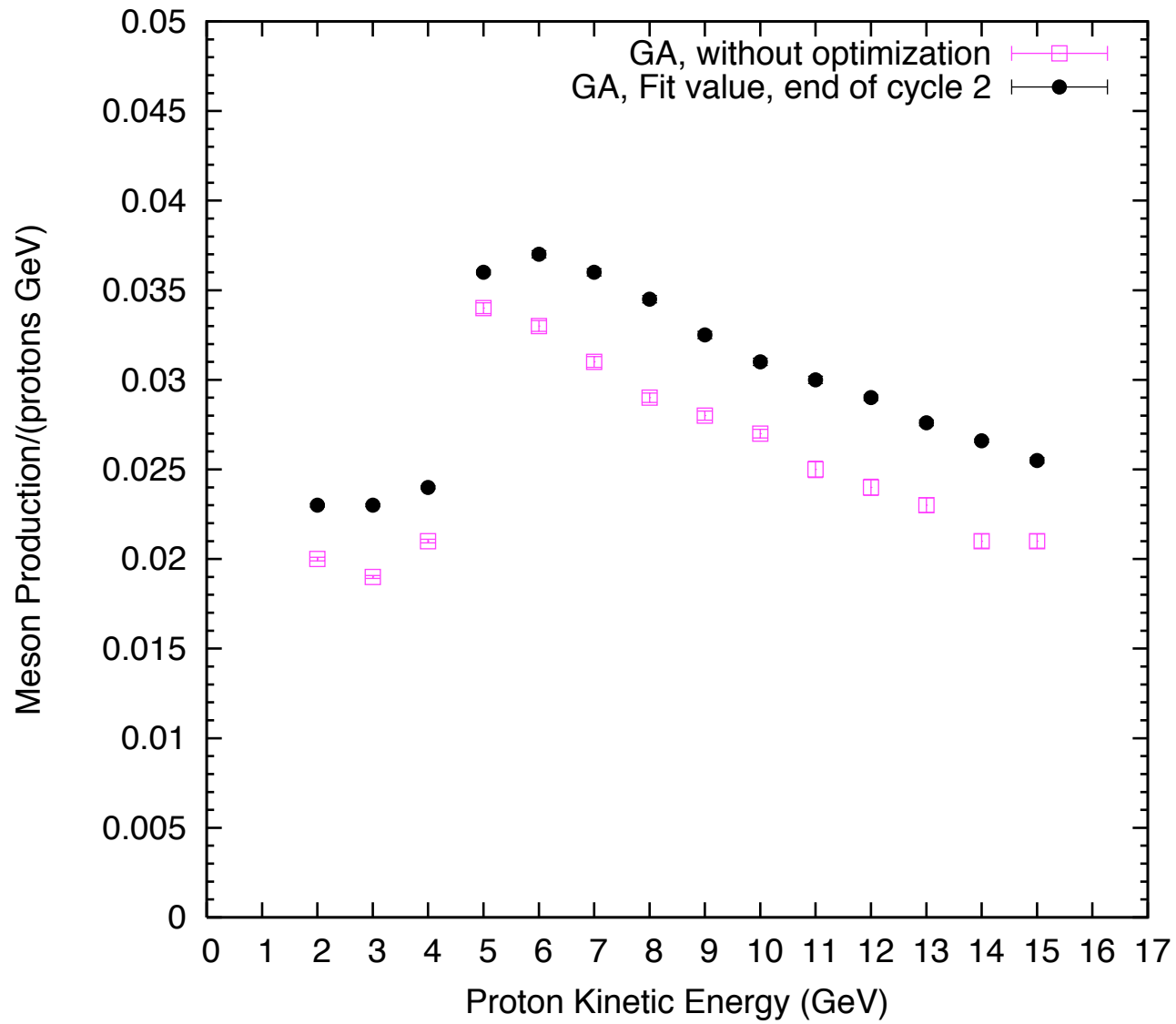
(beam below the HG jet exactly at $z = -37.5$ cm and project beam back to $z = -75$ cm.)

- 1) Vary jet radius
- 2) Vary beam/jet crossing angle while keeping jet fixed - always project beam back to $z = -75$ cm
- 3) Vary jet angle - always keep crossing angle constant - both jet and beam must be rotated about intersection point together - always project beam back to $z = -75$ cm.









BACKUP

MARS Results by J. Back



Useful pion/muon yields for different Z's and beam energies (J.Back)

